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equatorially round the pyriform yolk-bag, and the other, which is closely adherent to the first-named, has its fibres running at right angles to the latter, and consequently corresponding in direction with the greatest elongation of the yolk-sack. As far as the speaker is aware, nothing similar in the form of an involuntary muscular coat covering the yolk is known in any other embryo fish. Whether its function is to increase the strength of the yolk membrane under the peculiar conditions of tension or whether it served to force the contents of the yolk-bag within the abdominal parietes, as happens during the disappearance of the yolk, the speaker did not attempt to decide.

The statement in Jordan and Gilbert's *Synopsis of the Fishes of North America*, p. 750 that: "the young of some or all the species (of the Batrachidæ) fasten themselves to rocks by means of an adhesive ventral disk which soon disappears," must accordingly be qualified as incorrect so far as it carries the implication that the act of adhesion is a voluntary one on the part of the young fishes themselves. The researches of the speaker show very conclusively that the adhesion of young toad-fishes is effected in the first place, at the time of oviposition, by a mucous secretion covering the outer surface of the eggs, and this is supplemented at a later period, or after hatching, by the development, through a modification of certain cells at the surface of the yolk-sack, of an adhesive disk, produced by the modification of the substance of the peripheral or free portions of the cells of such an area which adheres to the inside of the egg-membrane. The embryo is thus left enchained for a period at the same place where the eggs were originally deposited but in such a way as to be free to respire the surrounding water and to freely vibrate the fins and tail. It is, therefore, clear that the fixation of young toad-fishes is a very complex process some of the steps of which are effected by the parent at the time of oviposition, while others are effected during the process of the development of the embryo itself, so that it is clear that such a fixation is not voluntary and has nothing in common with the voluntary and momentary adhesion, by means of modified fins such as is witnessed in the cases of the *Gobiesocidæ* and *Cyclopteridæ*.

NOVEMBER 11.

The President, Dr. JOSEPH LEIDY, in the chair.

Forty-eight persons present.

Remarks on Velella.—PROF. LEIDY exhibited specimens of *Velella mutica*, which with many others, were cast on shore at Beach Haven, N. J., in the early part of last August. The living ones were of a deep blue color and ranged from an inch and a half to three inches in the greater breadth. From them there were detached

multitudes of gonophores; minute jelly fishes, measuring 0·44 mm. long by 0·32 mm. broad.

NOVEMBER 18.

Mr. CHAS. P. PEROT in the chair.

Forty-seven persons present.

NOVEMBER 25.

Mr. CHAS. P. PEROT in the chair.

Fifty-eight persons present.

Papers under the following titles were presented for publication:—

“Researches on Respiration, No. 1.” By Henry C. Chapman, M. D. and Albert P. Brubaker, M. D.

“New Species of Fungi from Various Localities.” By J. B. Ellis and B. M. Everhart.

Albert P. Brubaker, M. D. and Miss Virginia Maitland were elected members.

The following were elected Correspondents:—

Alfred Giard of Paris, C. Hart Merriam, M. D. of Washington, R. W. Shufeldt of Washington, and Florentino Ameghino of Buenos Ayres.

The following were ordered to be printed:—